

# KERAMIC STUDIO

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It has been a difficult matter to make the ceramic fraternity understand our position in regard to decoration and we are sometimes dismayed at the misunderstanding on all sides. There is room in ceramic art for more than one style of work, as there is in so called "legitimate art" for both impressionist and academician. We believe in the naturalistic painting of flowers and other subjects—

but we wish to impress on china painters the fact that such work forms a *picture* and not a *decoration* and should be treated as such—painted on a panel, framed or unframed, and hung on a wall as is an oil painting or water color of the same subject.

We believe that in order to paint such naturalistic studies so that they will rank with good paintings of the same subjects in other mediums, every china painter, whether she intends to "decorate" or not, should carefully follow such a course as has just been given in *KERAMIC STUDIO* on Principles of Design by Mr. Hugo Froehlich. It is just as necessary to observe these principles of placing, spacing, decorative lines, masses, color, etc., in painting as in decoration, if good work is to be the result. We believe in the study of historic ornament as a foundation on which we may build a style of our own and the historic style of our own age and country.

We admire the reproduction of good antique styles, Chinese, Persian, etc., as we admire any good reproduction of a work of art, but we admire more the genius that is able to abstract the art principles illustrated in these ancient masterpieces and apply them to motifs which are immediately about us and thereby produce an original work of art and one which will help in the forming of a national style of this country.

But to each one the style that most appeals is legitimate. We prefer a good naturalistic painting or reproduction of an historic ornament to a poor attempt at original decoration, the best in its line is always pleasing and poor work is not to be discouraged or encouraged, because we have all of us to pass through the stage of learning and those of us who are not so much encouraged by indiscriminating friends that they think they have no more to learn, may some day be able to do something worth while. We can not all make works of art, but we may do pleasing things. Genius is born, not made, and rare at that.

We publish the best of the designs from the "Jack-in-the-Pulpit" class room but send the criticisms privately, as we find we cannot spare the space in the magazine.

## LEAGUE NOTES

THE Director of the Art Institute of Chicago has evinced an interest in the National League of Mineral Painters and expressed the desire that the Art Institute and the Ceramic Association become more in accord. We are therefore granted permission to hold our Advisory Board meetings at that institution.

We appreciate the generosity of our Eastern members in

voting us the management of League affairs just at this crisis. That this is a crisis, that we are evolving from mere overglaze decorators to ceramic artists, is proven by the sympathy we receive everywhere from artists and artisans, and by their opinions as expressed at the recent exhibition in New York, given by one of our Board members.

The results of serious study applied to porcelain are causing our artist friends to no longer shrug their shoulders, or stare into vacancy when we talk "shop."

A notably optimistic desire for broadness prevailed at the Advisory Board meeting last Saturday. A disposition to include all departments of pottery, thus giving each member an equal chance to develop his own particular style, remembering—imperatively—that the rudiments of art are as necessary as the rudiments of music. Whether it is the human voice, a violin, cornet, pianoforte, or drum, the same knowledge of tunes, spaces, notes, time, etc., must be mastered by those aspiring to be musicians. So in art, relation, proportion, construction, harmony of color, etc., must be mastered by those aspiring to be artists.

We urge our members to adopt the study course this year, it is absolutely *free* and is one of the benefits accruing to members of the League.

A letter of resignation to the Advisory Board from Cora A. Randall explains her inability to do justice to the League as treasurer, because she is already overburdened with club work. She expresses loyalty and a desire to aid in some department less burdensome. Mr. Albert Keith was elected to fill the vacancy.

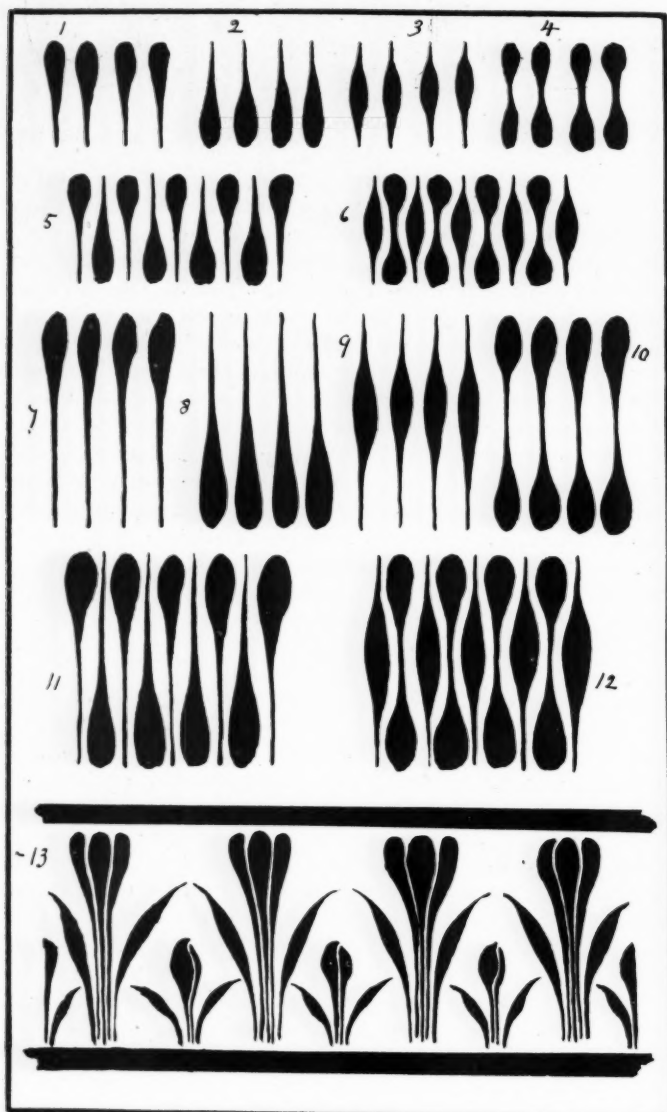
BELLE BARNETT VESEY,  
President, N.L.M.P.

ALBERT KEITH, Treasurer,  
No. 5745 Madison Avenue.

## BRUSH WORK

As Applied to Decorative Art, by W. P. Jervis (Author of the Encyclopedia of Ceramics) and F. H. Rhead

IT is a matter of wonder no less than of regret that the use of the brush as a medium for expressing form is not included in the curriculum of our public schools, for to the receptive mind of the young it is just as easy to teach form as it is to teach sound. Sounds are learned by constant repetition much more than by the acquired knowledge that a certain combination of letters is required to form a word. A pupil learns to spell correctly, but his pronunciation nine times out of ten is formed from his environment, otherwise we would presumably all speak correct English, in place of the heterogeneous language now in use. It would not require a great stretch of the imagination to consider this a parallel to drawing in outline from a cast and drawing direct from an object with a brush. A student trained to draw from a cast develops the mechanical accuracy of an engraver, whilst one trained to the use of the brush attains the freedom of a painter; in other words one would be able to spell correctly, the other to speak correctly. Whatever the arguments may be pro and con the advisability of superseding line work by brush work, we cheerfully admit the impossibility of doing so for all purposes,



but before these papers are concluded we think that we shall be able to demonstrate that anyone of ordinary intelligence, without any previous knowledge of drawing, will have acquired an idea of form and its expression which it would have been impossible to attain by any other method in a course extending over several years.

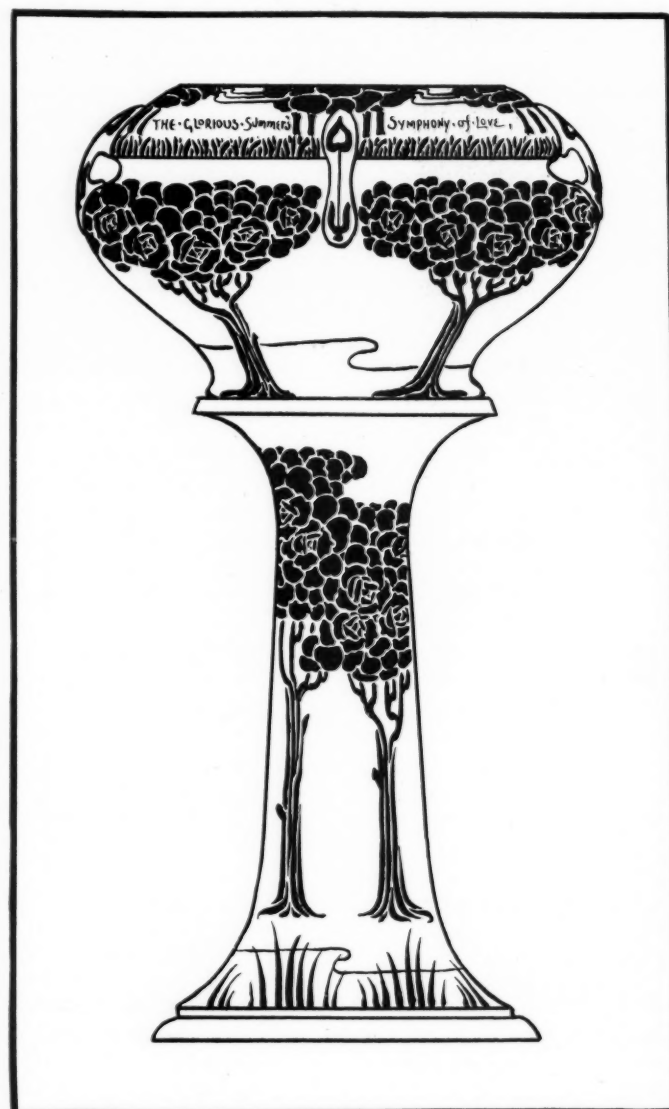
The classical designs of the Greeks, the Etruscans and the Egyptians were all produced by brush work. The Japanese use the brush exclusively and no one, however much he may cling to old traditions, will deny them the distinction of being the foremost decorative artists of the world. In England, aided by such men as Lewis F. Day and Walter Crane, the school is rapidly growing in favor, though at first discountenanced by the South Kensington Museum, a powerful factor in the dissemination and encouragement of art in England. This institution which represents the Committee of Council on Education, makes yearly grants to the various schools, awards prizes and scholarships and fosters art generally. The opposition to the movement was therefore keenly felt, but in spite of this it continued to grow and several large cities refused the grant because of its opposition to brush work and themselves provided the necessary funds, the city of London taking the lead in the movement. Finally wiser counsels prevailed at South Kensington, or perhaps to be more

accurate, they were forced by the strength of public opinion to acquiesce in it and within the last four years shading from the cast has been gradually dropped. Drawing in outline from the cast has been wholly discarded in the examinations for head masterships, and the students' examination in outline last year had to be executed with the brush.

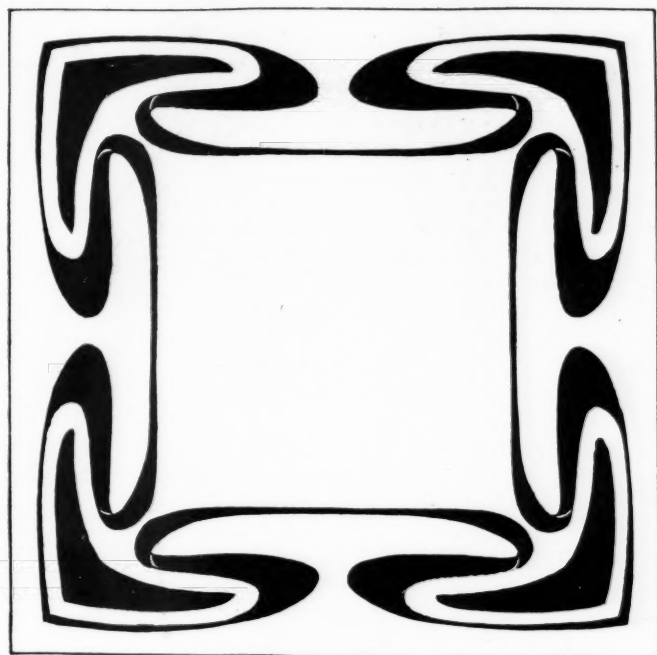
In the school of Art at Longton, Staffordshire, in charge of Mr. F. H. Rhead, there was a class of from seventy to one hundred day school teachers taking lessons in brush work, as the Board of Education has made it one of the subjects to be taught in the public schools.

In America the subject has not had the attention it deserves, though Mr. Liberty Tadd of Philadelphia, Mr. A. Dow of Brooklyn and Mr. J. Hall of Springfield, Mass., have all done good work in this direction. But the subject is of sufficient importance to demand concerted action in all the art schools of America and the KERAMIC STUDIO therefore feels no hesitation in asking that these articles be brought to the attention of teachers and principals of Art Schools, whenever a chance of doing so presents itself to the reader.

Too much stress cannot be laid upon the importance of teaching the use of the brush to children, even those in elementary classes, for if a child recognizes a letter by its shape and laboriously learns to draw it, how much easier will it learn to







TEA TILE IN BLUE AND WHITE—ALICE WITTE SLOAN

see the form of a leaf or other object it is brought into contact with every day. And it has been demonstrated beyond question that a child between the age of five and six years, has produced infinitely better results in copying forms with a brush than with pen or pencil. In a series of easy lessons therefore we shall endeavor to teach you primarily to see form; to express that form with a brush and by its repetition and combination form it into ornament. This being a journal devoted primarily to the ceramic art, especial attention will be given to pottery, but the student will quickly perceive its adaptability to other forms of decorative art.

## LESSON I

The materials required are very simple. A few sheets of cheap drawing paper, a tube or pan of sepia water color and a number five camel's hair pencil. Be sure this has a good point. The object of the first lesson is to show the beginner how to make simple strokes of varying shapes with single strokes of the brush. That these may be of uniform size it is advisable to rule two parallel lines about an inch apart, at the top of the page, thus forming a guide for the length of the strokes, but this should be abandoned as soon as possible, as entire freedom is essential to success. Hold the brush lightly between the thumb and forefinger, the stick of the brush pointing over the right shoulder. Be sure to use plenty of water so that the color will flow freely from the brush. Stroke No. 1 is made by exerting full pressure on the brush, then draw it towards the shoulder and at the same time lifting it until it is resting on its point and standing perfectly perpendicular. Practically the brush assumes but two positions in making this stroke, 1st, pencil between finger and thumb and pointing over the right shoulder, pressure exerted on the brush which rests on the paper at an angle of about forty five degrees; 2nd, the brush perfectly perpendicular, held lightly between thumb and finger and just resting on its point. It is advisable to master each stroke before attempting another, but for variation do one row about one inch wide and another row two inches as Fig. 7. Practice this and all other strokes until you are able to do them at the rate of one every second. Fig. 2 is executed in the same method as Fig. 1, only the first position is the brush at the point and in the second it is held at full pressure

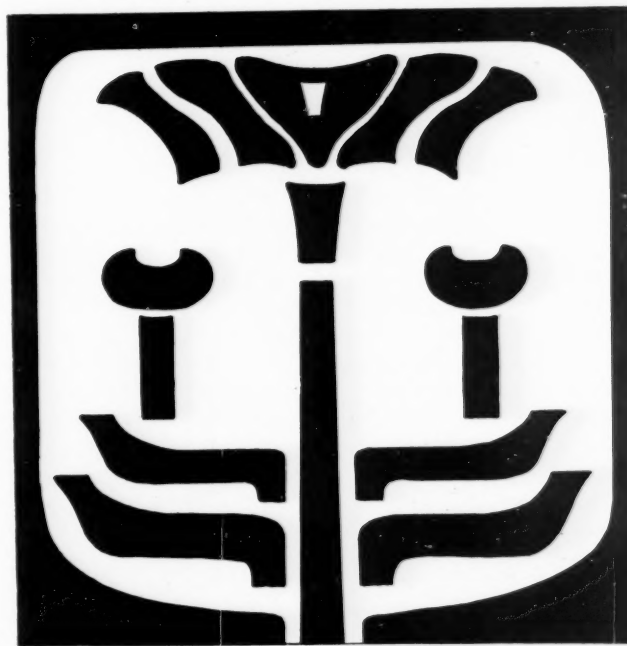
on the paper and is lifted up simultaneously with the pressure being obtained. This is a little difficult at first but it will soon be overcome by a little practice. Do not be afraid. Make your strokes were boldly and fearlessly. Brush work is nothing if it is not direct.

Fig. 3 is very simple when Fig. 2 is mastered, but you will find it a very useful and important stroke. It will be seen that full pressure of the brush is exerted in the center of the stroke and both beginning and ending with the brush at a point. Fig. 4 is a combination of Figs. 1 and 2, and though in itself it is neither useful nor ornamental it will be found an excellent shape for practice. It is the first and second shapes done in one stroke. Fig. 5 and 6 are good practice to obtain uniformity of shape. Figs 7 to 12 are simply enlargements of Figs. 1 to 6. In Fig. 13 we have used the above strokes to form a simple border. These then are the "pot-hooks and hangers" of brush work and when you have mastered their formation and can do them quickly and neatly it is a very short step to something of greater interest. As a lesson, make six similar borders to Fig. 13, using only the strokes shown. The jardiniere and pedestal is given as an example of brush work on pottery. The decoration is in colored clays.

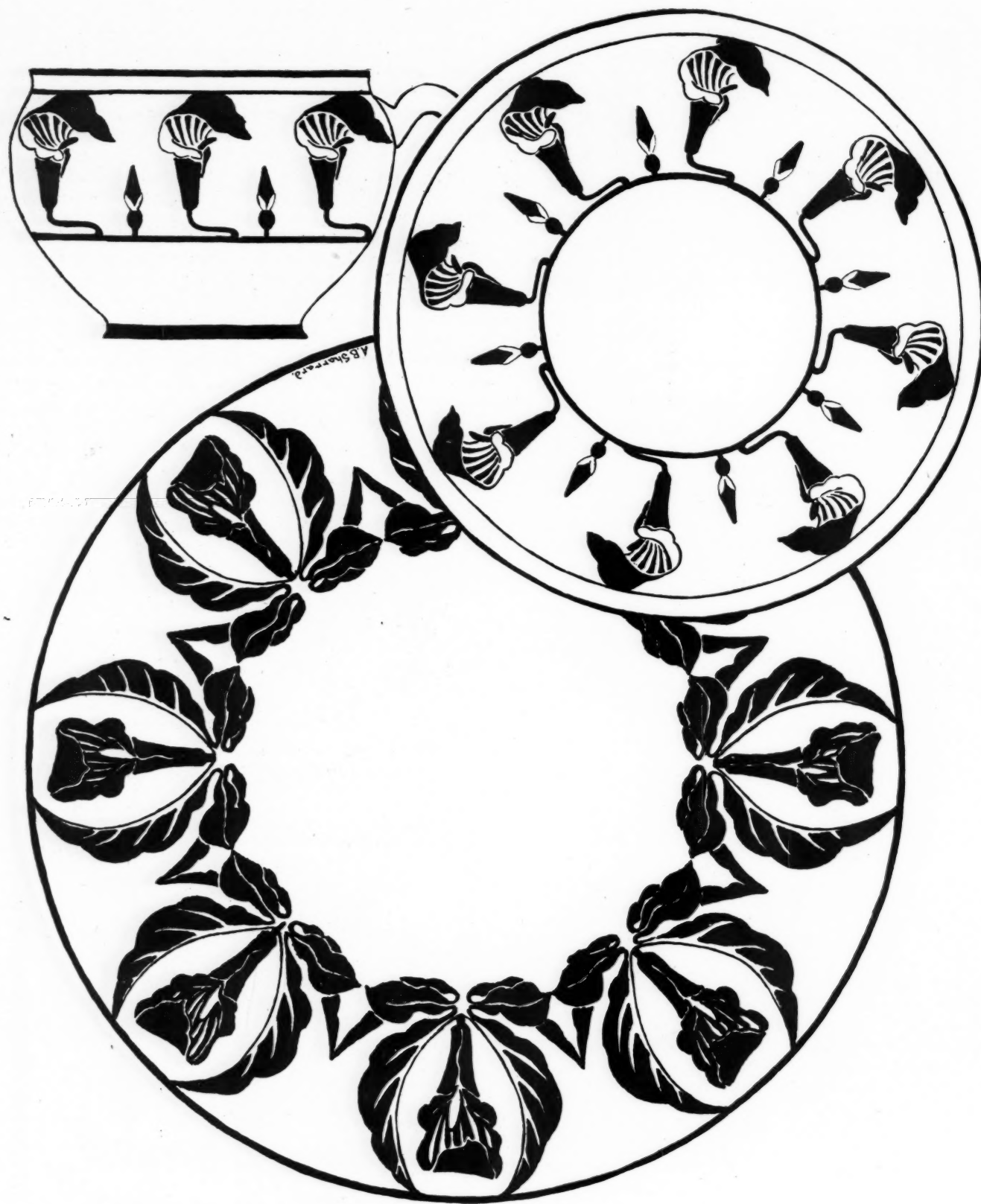
(To be Continued.)



The problem of making a design for a tile, at once striking and simple, which can be easily executed, so that the cost of production will not be great, is one of the most difficult problems to be encountered. We reproduce one executed by Mrs. Sloan, a simple abstract arrangement of lines, and one by Miss Peacock, an extreme conventionalization of a flower form. These two designs are successful in every way. There is a bigness in these designs which make them very effective whether seen at a distance or near by. Most students make the mistake of adding too many "finicky" details, which belittle the subject and detract from the dignity of its handling. A naturalistic arrangement is altogether inappropriate for a tile, which is to be used as one of several or many units, as in a tiled fire place or window box, or which is to be utilized as a teapot or flower pot stand.



TILE FOR WINDOW BOX IN BLUE OR GREEN AND WHITE—EMILY F. PEACOCK



JACK IN THE PULPIT—ALICE B. SHARRARD

This design should be carried out in different shades of green, a delicate color for the flowers, and darker shades for the leaves, or the entire set could be executed in Bronze Green or Park Green. Gold as a background or outline would add to the richness of effect.





L. Horlocker

SNOW BERRIES—L. HORLOCKER

## GRAND FEU CERAMICS

XIII—GRAND FEU COLORS—Colored Glazes—Flamme Glazes—  
Flowing Glazes

## Taxile Doat



COLORED pastes used on small surfaces give to the decoration a firmness and a character of solidity which are very attractive; but used on large surfaces they impart to a vase a heavy, marble like appearance. This defect led to researches for the incorporation of color with the glaze and gave birth to colored glazes. Colored glazes are real translucent colored glasses, and the color dissolved in them is, as for pastes, derived from metallic oxides. The basis for these glazes is the colorless glaze, called white, with which the porcelain is covered, and into which are introduced by careful grinding and mixing a few hundred parts of coloring oxides.

If one wishes to obtain the exact value of tone which the formulae in these articles are capable of giving, it is necessary to use oxides free from all impurities. This purification is the duty of technical chemists. The analyses which are necessary in order to obtain the best products are minute and delicate and, consequently, slow and expensive. A ceramic artist cannot undertake them, as he must give his time to the absorbing experiments of his art. He must be, as I am, satisfied with materials as he finds them, avoiding for some tones a certain harshness which is caused by too pure materials, but in other cases, submitting to the unavoidable result of impurities.

Cobalt free from nickel gives a fine blue tone both in daylight and artificial light. When it contains nickel, it is duller in the daylight and black in the artificial light. Notwithstanding their purity, the Sèvres blues are black in artificial light, while the old Chinese blue porcelains remain blue in all kinds of light. How did these empirics of genius manage to do it?

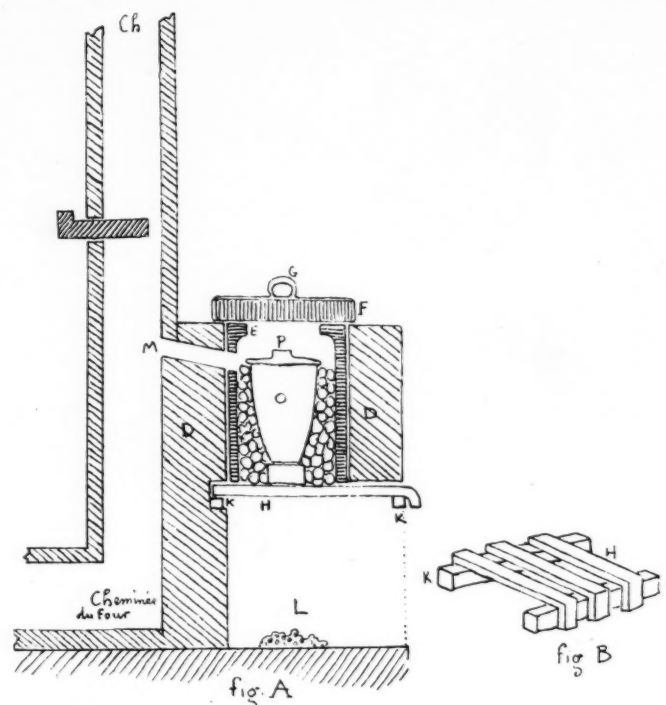
At Sèvres, all materials, before being used, are analysed in the laboratory and tried in the fire. This is the secret of the fixity and richness of colors used on the various ceramics which are made at Sèvres. For my own work I have to be satisfied with frittings and grindings made with the greatest care, and with the greatest possible precision in the conduct of the firing. And it is a great deal to succeed in doing that with modest resources.

I wish to call the attention of artists to cases in which they will be obliged to modify the formulae given below, which have been worked out for two bodies, PN and Lacroix-Ruaud. As the addition of a coloring oxide to a glaze changes its fusibility and its coefficient of expansion, the mixture must be so arranged that it will fire at the same time as the body, without crazing, and this can be done only by careful experimenting. But whether these formulae are used as I give them, or modified, it is important to maintain the degree of plasticity which makes the glaze adhere to the body. For this, only a small part of the elements should be fritted, and the rest should be added by simple mixture. The intensity of the color is based, not only on the quantity of coloring matter, but also on the proportion of chalk which it contains, the latter varying more or less according to the fusibility given to the glaze by the oxide.

The fritting of colored glazes, cannot be done in the kiln, as was the case with colored pastes, because it must be watched, and the fusion stopped or continued, according to circumstances. Frits are made in a special kiln.

This kiln is a blast kiln (Fig. A), communicating with the chimney of the regular kiln, so as to get the advantage of its

intense draft. The kiln is vertical and cylindrical, entirely constructed with fire bricks D and contains a fire clay cylinder E open at both ends. The upper part is closed with a fire clay plaque F with iron bands and a handle to allow of easy lifting. The lower part rests on square iron bars, about 1 1/4 inch apart,



to give free passage to ashes and air. These bars rest themselves on two cross bars fixed in the wall K. The bars of the grate can easily be removed to clean the kiln. (Fig. B). The ash receiver L, formed by the space below the bars, is wide open in front. The fuel is coke which is placed around the fire clay crucible O. The top of the kiln communicates with the chimney through an oblique opening M made through the thickness of the wall. It is easy to watch the fusion of glazes by lifting up the cover P of the crucible with flat pincers.

The number and size of crucibles determine the size of the kiln. The one which I use is 18 inches high by 10 inches inside diameter. I use crucibles No. 20 which are 14 inches high and 6 1/2 wide and make it possible to melt 20 pounds of material. The crucible is placed on a fire clay plaque which holds it in the center of the fire mouth. This kiln is very economical.\*

All the following preparations for colored glazes should be thoroughly mixed.:

## Blue:

Quartz sand of Nemours	30.5	strictly oxidising.
Dry clayey kaolin	20	
Ordinary washed chalk	24	
Grand feu blue frit, as below	30	
Frit: Dry and pure cobalt oxide	20	
Feldspar in flour	80	

## Brown:

Sand	30.5	oxidising
Dry clayey kaolin	20	
Chalk	19	
Scale brown grand feu frit, as below	33	

\*In this country, where oil is a cheap fuel, the little test furnace made by H. J. Caulkins & Co., of Detroit, Mich., will be found very useful and economical for crucible work. It can either be used for fritting, or by the insertion of a small muffle, can be transformed into a small kiln for tests and experiments on porcelain. The gas furnaces of the Buffalo Dental Mfg. Co. are also suitable for fritting.

Frit: Manganese oxide	15
Calcined umber	20
Feldspar in flour	65

*Black:*

Sand	30,5	oxidising
Dry clayey kaolin	20	
Chalk	24	
Grand feu blue	6,5	
Frit as below	25,5	

Frit: Feldspar in flour	30
Chromate of iron	6
Chromate of cobalt	3
Cobalt oxide	3

*Yellow:*

Sand	30,5	oxidising
Dry clayey kaolin	20	
Chalk	22	
Frit as below	20	

Frit: Feldspar in flour	30
Nitrate of uranium	8

*Pink:*

Sand	30,5	oxidising
PN paste	47	
Chalk	24	
Tin pink as below	7	

Tin pink: Tin oxide	100
Chalk	34
Bichromate of potash	3,5

The preparation of this tin pink presents difficulties. It should be mixed by pouring the dissolved bichromate over the tin oxide and chalk, then the mixture should be strongly calcined, and washed until the water is colorless.

*Blue celadon:*

Sand	30,5	very oxidising on account of copper.
Dry clayey kaolin	20	
Chalk	24	
Frit as below	29,5	

Frit: Feldspar in flour	30
Copper oxide	1,5
Tin oxide	2,7
Iron oxide	0,3

*Grey celadon:*

Sand	30,5	very oxidising on account of copper.
Dry clayey kaolin	20,5	
Chalk	24	
Frit as below	38	

Frit: Feldspar in flour	30
Copper oxide	4,9
Tin oxide	8,2
Iron oxide	0,9

All the above glazes have been created for oxidising fire and fire between the fall of cone 9 and bending of cone 10. Having been prepared for porcelain, they do not give good results on gres.

The following series of colored glazes will suit grès, having been created at Sèvres for the coloration of the large grès frieze which adorns the facade of the Grand Palais, on Avenue d'Antin. The body exerting a great influence over the glaze, a special palette had to be created for the execution of this frieze.

The substances which enter into the composition of these glazes do not require the slow and troublesome work of fritting, as they are simply mixed. All the following formulae belong to the manufactory of Sèvres, and are of easy execution:

*Colorless glaze for gres:*

Is made by mixing and grinding together in water, the following substances, which can be bought from Mess. Plouenc Freres, Paris, and which must be as thoroughly pulverised as possible:

Feldspar from the Pyrenees	42,1
Quartz sand of Nemours	27,2
Dry clayey kaolin of Limoges	13,0
Chalk from Bougival	17,7

The Nemours sand is nearly pure silica, and the kaolin which enters into this composition is an hydrated silicate of alumina.

Like the other glazes, these grès glazes are applied either on raw or baked ware, after having been diluted in water thickened with a little gum tragacanth.

*Cobalt blue for gres:*

Cobalt oxide	3,0	oxidising
Bougival chalk	14,1	
Feldspar from the Pyrenees	42,1	
Quartz sand of Nemours	27,2	
Dry clayey kaolin of Limoges	13,0	

*Manganese violet brown for gres:*

Manganese brown oxide	5,0	oxidising
Chalk	13,0	
Feldspar	45,0	
Quartz sand	28,5	
Dry clayey kaolin	11,0	

*Nickel reddish brown for gres:*

Carbonate of nickel	3,0	oxidising
Chalk	15,3	
Feldspar	42,1	
Quartz sand	27,2	
Dry clayey kaolin	13,0	

*Uranium yellow for gres:*

Uranium oxide from the calcination of uranate of ammonia (a very important point)	5,0	oxidising
Chalk	17,7	
Feldspar	42,1	
Quartz sand	29,3	
Dry clayey kaolin	8,5	

*Iron yellow brown for gres:*

Pure red oxide of iron	5,0	oxidising
Chalk	13,0	
Feldspar	45,0	
Quartz sand	28,5	
Dry clayey kaolin	11,0	

*Chrome green for gres:*

Green chrome oxide	1,0	oxidising
Chalk	17,7	
Feldspar	42,1	
Quartz sand	28,0	
Dry clayey kaolin	11,3	

*Copper green for gres:*

Copper oxide	4,0	oxidising
Chalk	12,7	
Feldspar	42,1	
Quartz sand	27,2	
Dry clayey kaolin	13,0	

By simple mixture of these fundamental colors, it is easy to obtain an unlimited range of tones, and to thin them with colorless glaze to bring them to the desired shade. For instance a *flesh tone* will be obtained by the mixture of

Manganese glaze	50
Colorless glaze	50



a violet grey by the mixture of

Nickel glaze	10
Cobalt glaze	3
Colorless glaze	87

a blueish green by the mixture of

Chrome glaze	30
Cobalt glaze	3
Colorless glaze	67

a golden brown by the mixture of

Manganese glaze	50
Iron glaze	50

These few examples show what an artist fond of experimenting may do with these glazes made each from one oxide, but which can be combined ad infinitum.

The grès colored glazes must be fired in an oxidising atmosphere to keep the quality of their tones.

#### *Flammés or Flambes*

This name is given to glazes which derive their coloring power from copper and iron, and which during firing, are submitted to the constantly changing influence of the flames which whirl in the kiln. After firing they present variable effects, according to the more or less oxidising or reducing action of the flames, also to the pyrochemical combinations which the various elements of these glazes produce together. It is easy to understand that at the high temperature at which these combinations are formed, it requires the greatest care to avoid the oxidising of a metal as sensitive as copper, which is turned green by an oxidising action lasting a few hours. Hence the unlimited variety of flammés.

I have told in the article on firing how to obtain a reducing atmosphere at will.

The red cuprous glaze is prepared in a special way because it contains substances which are soluble in water. The matters which compose it must be combined in the crucible.

The following should be thoroughly mixed and fused:

Pegmatite (feldspar)	108,0	} strictly reducing
Quartz sand of Fontainebleau	126,0	
Zinc oxide	15,5	
Carbonate of baryum	36,0	
Fused borax	45,0	
Dry carbonate of sodium	16,5	

After fusion, the glass thus obtained is pulverised and colored as follows:

Ground glass	10,000
Oxalate of copper	1,200
Calcined tin oxide	1,100

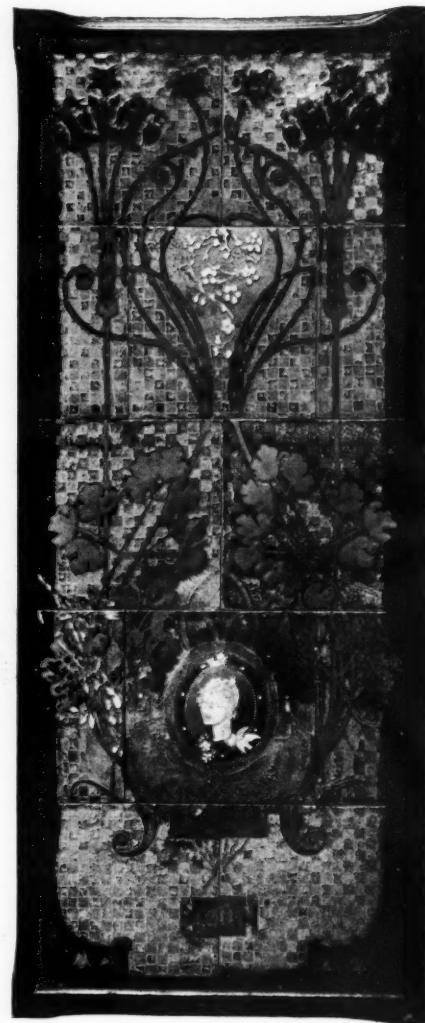
This new mixture is carefully ground so as to form a homogeneous mass, and the glaze is applied, quite thick, on the raw ware, with the brush and gum tragacanth.

Whatever the care given to the preparation of this erratic glaze and to its firing, it is difficult and very rare to obtain pieces identical in tone, even when they closely resemble each other. However Chaplet has shown me two flammés which were absolutely identical on their four faces, although each of these faces was of a different tone. I must add, however, that these two pieces were only 2½ inches high and had been fired side by side in the same sagger.

But if flammés can give a succession of deceptions, they also give a succession of unexpected and fascinating results.

Reds of copper will develop on both bodies, grès and porcelain. I have obtained them on both, but flammé red porcelains possess a brilliancy and freshness which is given them by the underlying material and makes them superior to flammé red grès.

Among flammés are the celadons of iron. These are produced by the introduction into the glaze of 1 to 3% iron



Panel in kaolinic grès by Taxile Daut, purchased by the French Government for the Musée du Luxembourg. Subject: Venus. Figure and small flowers in white pâte sur pâte on green ground. Decoration of small squares in mat and bright yellow. Cartouche and columbines in mat pale blue speckled with rust.

oxide. Just as for the reds of copper, a strictly reducing atmosphere is necessary and saggars must have spaces free from lute (Fig. 81) to allow the flame free access into them. The greatest part of the old Chinese and Korean celadons were thus obtained with iron. These celadons are finer on grès than porcelain, especially when the glaze is calcareous.

Here is the formula of flammé celadon of iron, which resembles the Korean celadon and may be seen on some of my grès vases:

Sand	33,35	} to be strongly fritted.
Chalk	19,70	
Feldspar in flour	26,30	
Clayey kaolin	8,60	
Red ochre of Burgundy	12,00	

#### *Flowing Glazes*

The use of borax in flammés has led the Sèvres chemists to study the combinations of this substance with other oxides and its influence upon their development. By superimposing a boracic glaze over a colored glaze, one obtains this curious series of marbled effects, the shade of which varies with the glazes used, while the greater fusibility of the boracic glaze provokes the flowing and sliding of both, so that they mix their colors in the most unexpected and harmonious way.

The use of this process of decoration requires much practice in the disposition in spots or clouds of the boracic glaze over

the ordinary glaze, also in the thickness which must be given to obtain artistic and pleasing effects.

The fire does not act here as in the case of flammés. It only determines the flowing of boracic glazes and the results will be to a great extent unexpected, according to the time of firing and the variable thickness of the color.

First, one or many colored glazes should be applied on the raw ware, as evenly as possible. When the piece is thoroughly dry, a coat of boracic glaze is applied over the colored glaze, its thickness depending on the kind of effect which is looked for.

Interesting results may also be had by applying a thin coat of boracic glaze between two strong coats of colored glazes of a different nature. These glazes do not give as good results on grès as on porcelain.

For boracic glazes, as for flammé reds, it is necessary to place the vases on high columns, and to wash these thoroughly with the infusible wash [50% calcined alumina, 50% washed kaolin (ball clay)]. As for reds also the vase must be thick, so as to avoid cracks, which, during firing, might be provoked by the thickness of glaze, the latter forming a kind of cuirass on the vase.

The preparation of boracic glazes is made by means of a flux to which, in a second fusion, are added the coloring oxides. Here is the formula of this flux:

Feldspar in flour	40
Sand	40
Borate of sodium, fused and pulverised	12
Chalk	18

This flux being the key to these very simple combinations, it is unnecessary to give them in detail. Each person will mix with it, to suit his fancy, coloring oxides in the proportion of 2 to 4%, and then will frit the mixture mildly.

Coloring oxides which give the richest effects are copper, manganese and cobalt. The most successful superimpositions are boracic glazes with copper or manganese over the black or the brown glaze; or boracic glaze with cobalt over the yellow or the pink glaze. The boracic glazes which I use on my pieces contain 4% of coloring matter. These flowing glazes develop in an oxidising atmosphere.



CONVENTIONALIZED FROM JACK-IN-THE-PULPIT—HANNAH B. OVERBECK

### SHOP NOTE

We are just in receipt of a circular of F. Weber & Co., of Philadelphia, announcing the introduction of a new small oil kiln for overglaze decoration.



STUDY OF GOLDEN ROD—MARGARET OVERBECK

### CHRISTENING PRESENTS

The youngest generation of to-day shares the advantages with the elder of the great improvements which have been made in the realms of applied art.

Instead of the ugly silver christening mug of the 70's, the most graceful cups and vases are given. The Guild of Handicraft is often called upon to execute customers' own designs. A favorite pattern is the tall, simply curved cup, studded with carbuncles, cornelians, chrysoprases and generally has the infant recipient's name engraved just below the edge.—*From the London Daily Mail.*

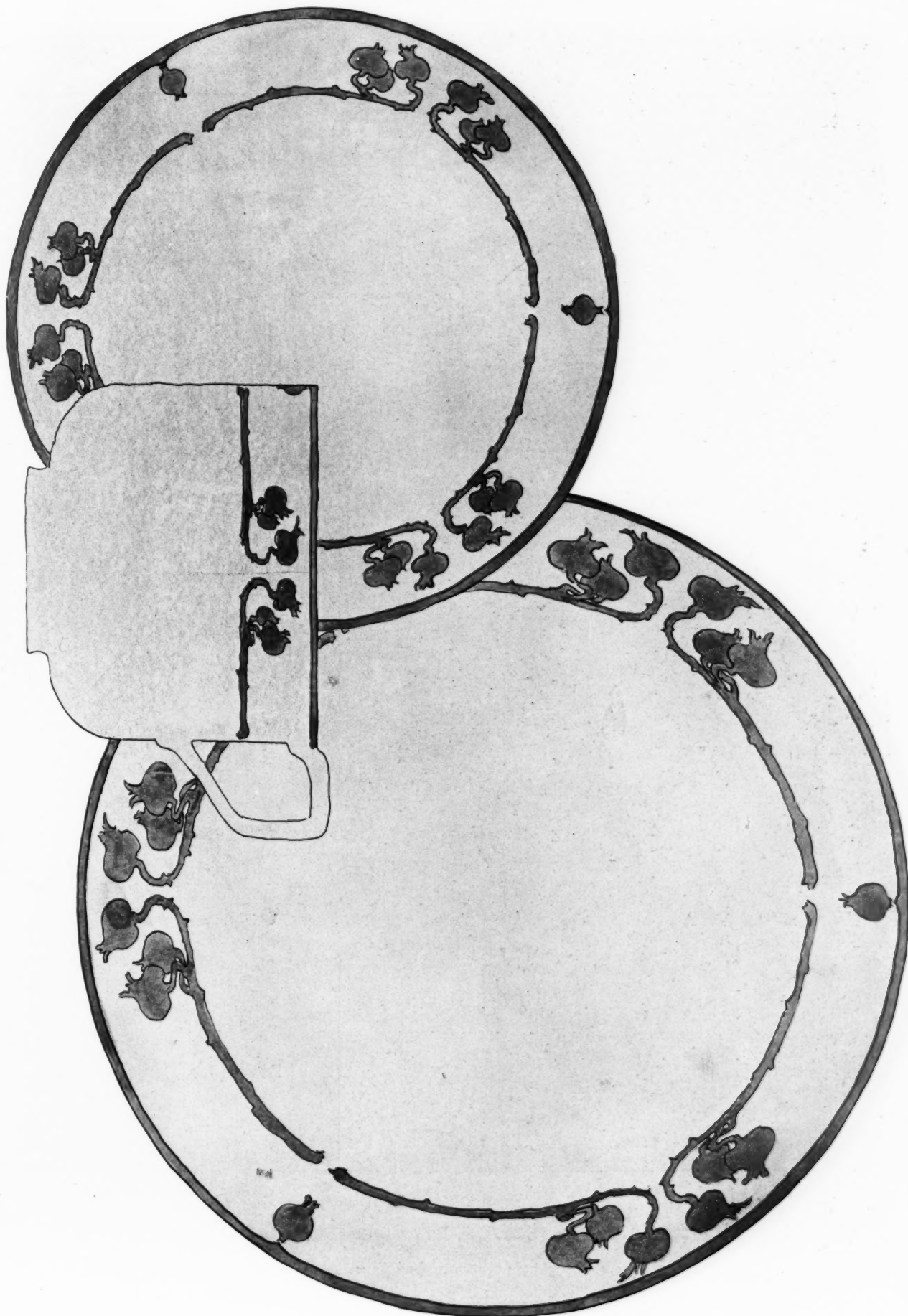
For many years M. Herbert of Paris interested himself in forming a collection of ancient mustard pots, and he succeeded in obtaining a unique series of all shapes and sizes in old Sèvres, Dresden and other porcelains. M. Hébert recently died, and Mr. Fitz-Henry bought the collection from M. Hébert's brother for presentation to the Louvre. These mustard pots will find a permanent resting place in the room now occupied by the exhibition of the French Primitives.—*Boston Transcript.*





STUDY OF GOLDEN ROD—HANNAH OVERBECK





CUP, SAUCER AND PLATE—MARGARET OVERBECK

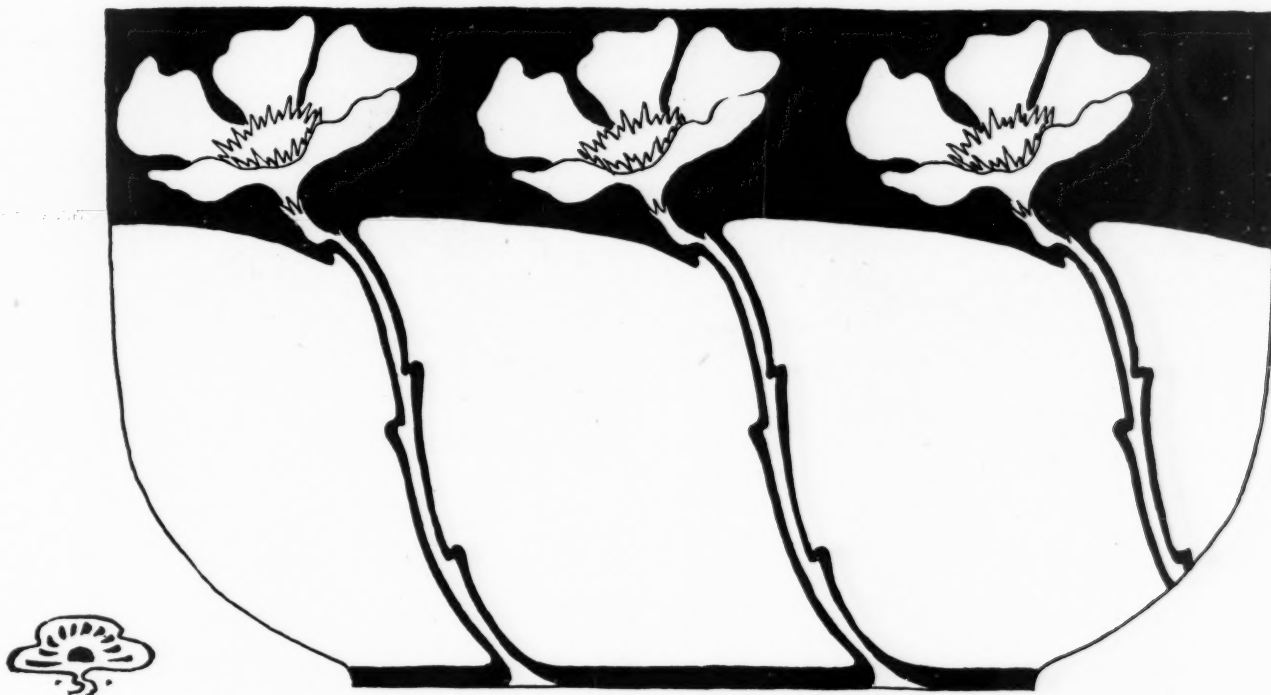
Ground of border grey green; design in yellow brown outlined in a darker shade or in gold.



•OLEANDER•

DECORATIVE STUDY OF OLEANDER—EDITH ALMA ROSS

Flower, a creamy pink; leaves, grey green; ground, violet grey.



APPLICATION OF OLEANDER TO CERAMIC FORM—EDITH ALMA ROSS

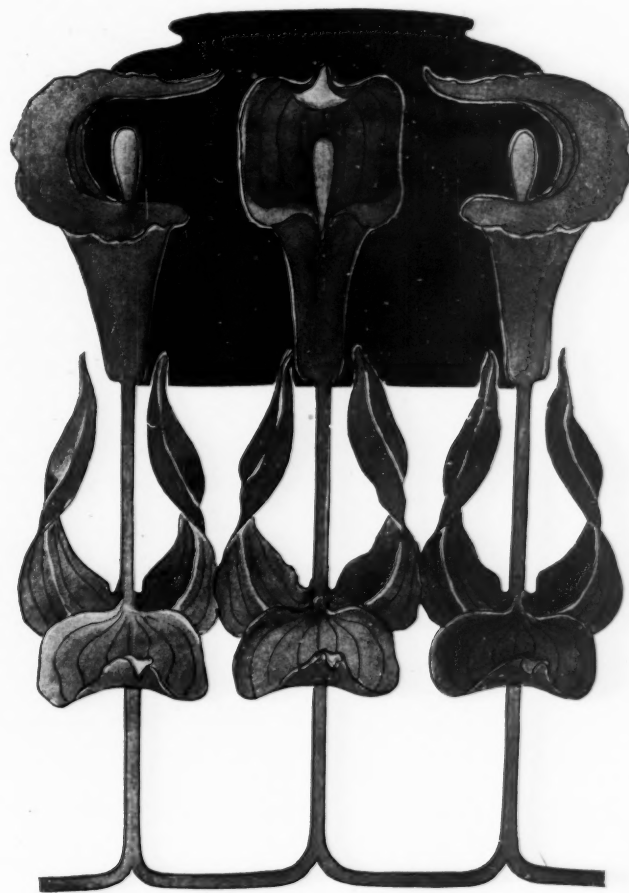
Design in blue and white.



VASE

*Edith Alma Ross*

THE vase is adapted from the oleander and is to be executed in three shades of green, the dark one very dark. Outlines are in gold.



VASE—JACK-IN-THE-PULPIT—HENRIETTA BARCLAY PAIST





## JONQUILS

Mrs. J. F. Bernies

FLOWERS, pale yellow in high light, deeper yellow in ordinary light and shaded with green and brownish green according to depth of shadow. Leaves, blueish green, very light in high lights. Background may be soft green tones or grey.



## RARE ART DISCOVERIES

THE collection of ceramics in the museum of Fine Arts has been enriched with several examples of the pottery lately discovered at Rakka in the vilayet of Aleppo, a district along the western border of ancient Mesopotamia. The vases

and fragments brought to light in the excavations are presumed to belong to a period extending from the days of Darius and Cambyses, who invaded Egypt, to those of the great prophet Mahomet and even later.

The importance of these examples becomes all the more apparent from the fact that they illustrate the evolution of Persian ceramic art from its rudimentary stages to that which flourished under the Ottoman empire. From the information so far obtainable it appears that the earliest object in the collection is the small iridescent pitcher from M. Dikran Kelekian and that to the same period belong the flat iridescent plate—lent anonymously—a large whitish vase and a beautiful ovoid vase resembling in color certain Chinese celadons, also the mulberry purple and iridescent pitcher of the collection. The turquoise bowl, the fine warped white and blue bowl and most of the fragments would, it is supposed, fall well within the fifth to the tenth century of our era. These very well illustrate the ceramic art of Islam.

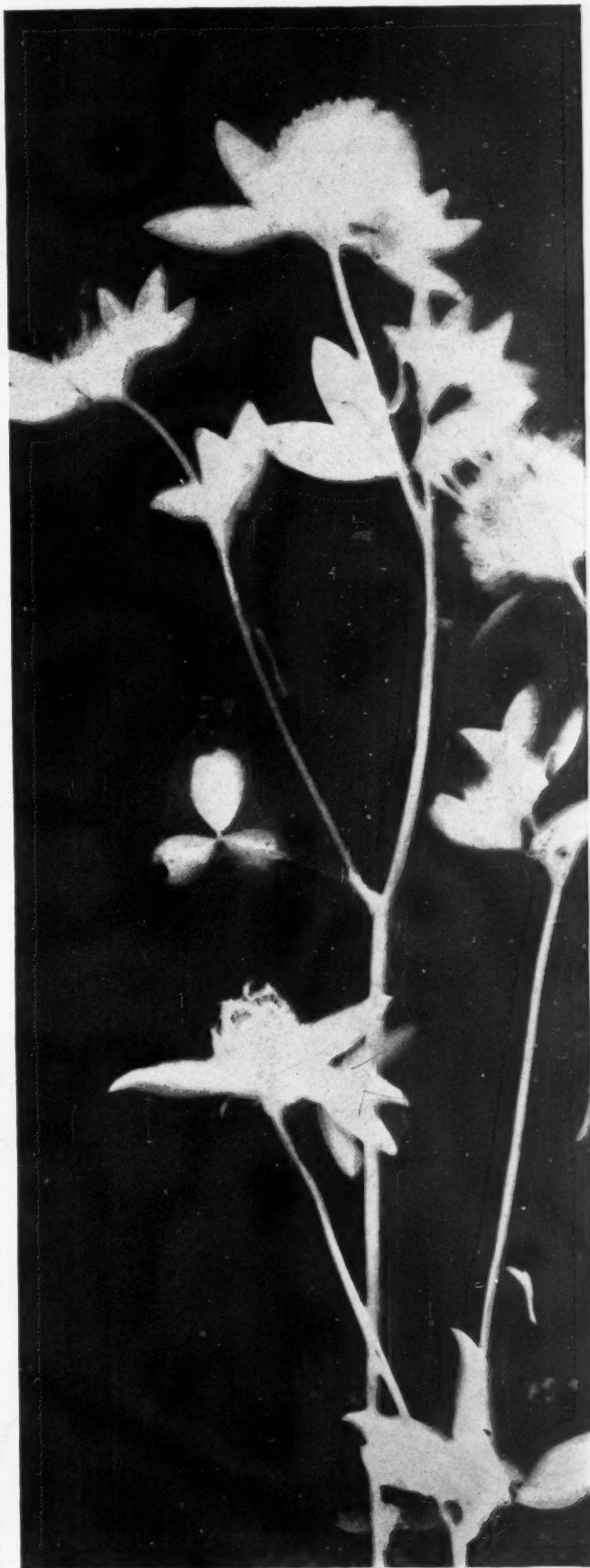
On the upper shelf of case 20 are some fanciful examples of the work of the Ming potters. These clay modelings of fruits and flowers reflect a mode of treatment which gave way before the ostentation of the Manchurian dynasty, and has never since reappeared in the art of China. As a further evidence of still earlier refinements may be pointed out the delicate white plates that are attributed under the name of Sung, to that dynasty of the 11th and 12th centuries, and which bear designs in a slight relief or intaglio of a character connected almost wholly with Indian ornament.

In case 21 are nine Chinese vases of periods which antedate the present Manchurian dynasty. One shows the transparent green glaze of the Ming, one a grey-green of the Sung, and one—on a large scale—the splendid blue and white enamel of a Ming brush.—*Boston Evening Globe*.



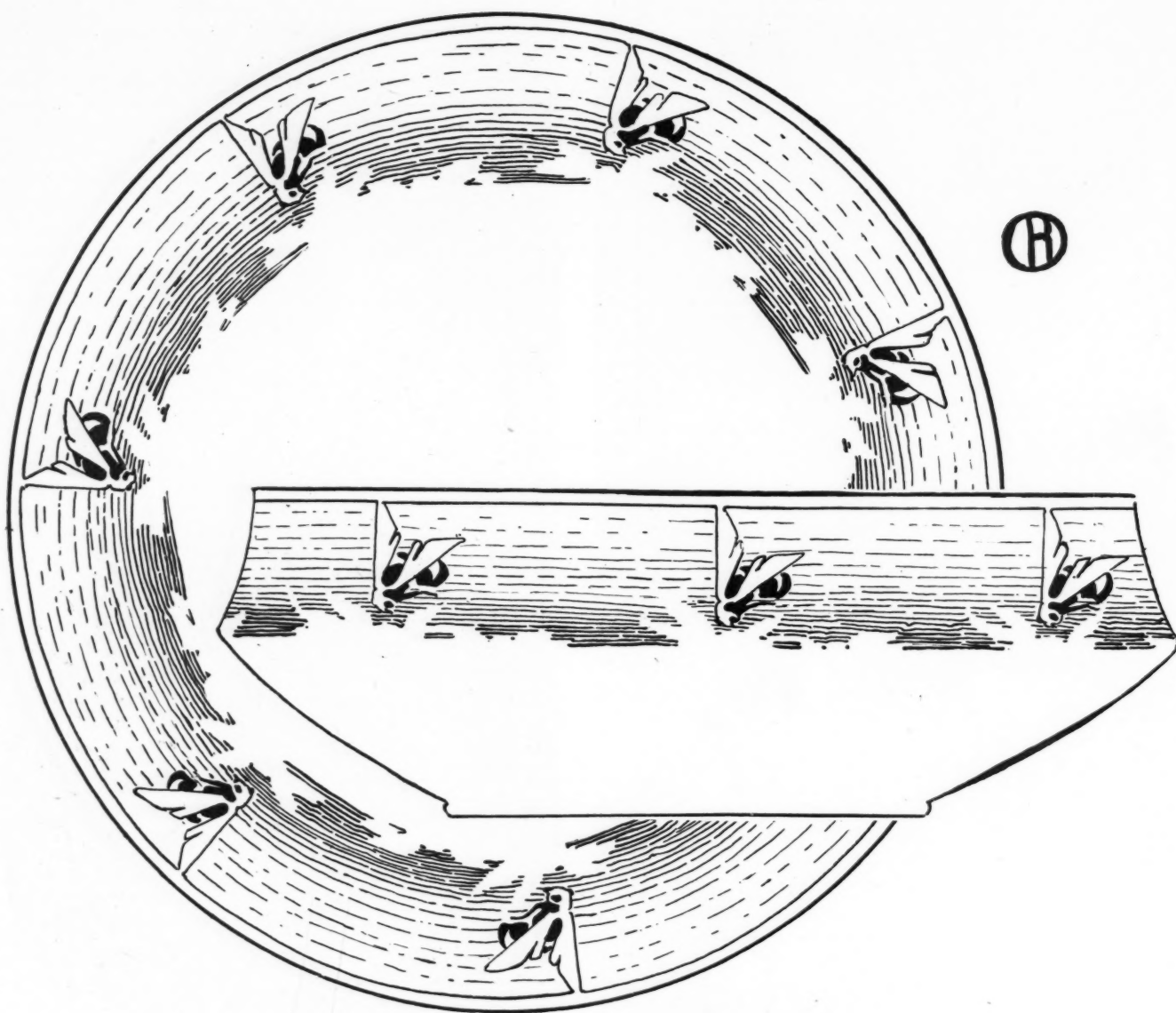


Dock



Red Clover

BLUE PRINT STUDIES—LETA HORLOCKER

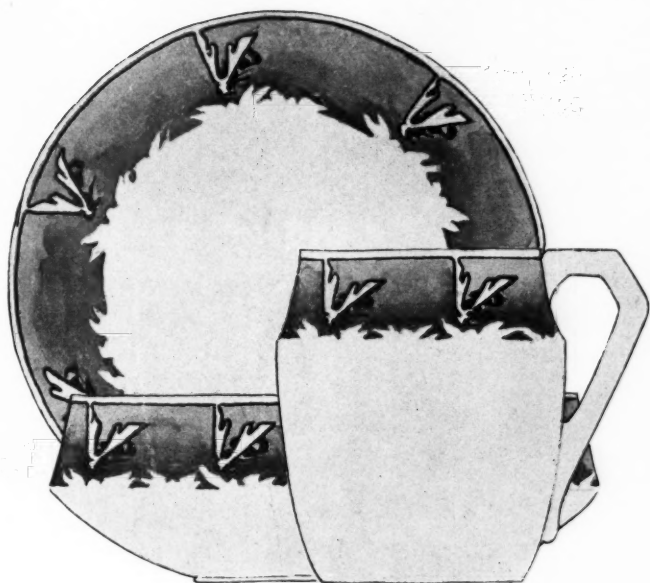


BEE DESIGN—AUSTIN ROSSER

THE band of color is a soft grey blue which deepens to a darker tone just tinged with purple against the flower forms. These should need no outline. The bodies of bees are

done in hard black, outlines are of gold, wings and narrow band above color are white. Or black may be omitted, using gold for bodies as well as outlines.





CHILD'S BREAD AND MILK SET

*Austin Rosser*

THE band of color shades from a light slightly greyish blue to a deeper tone, just tinged with purple. The white flowers should stand out sufficiently against this without outlines.

Leave the narrow outer band and the wings of bees white, make bodies dull black, outline with gold. The blacks may be omitted entirely, using gold for bodies.

## CHINA FORGERIES

A NUMBER of forgeries of famous makes of china and pottery have recently been discovered in the large collection of ceramics at the Pennsylvania Museum, in Memorial Hall, Fairmount Park.

Dr. Edwin Atlee Barber, curator of the museum, has in hand the preparation of a case of such forgeries, copies and reproductions, to be part of the permanent exhibit of the museum for purposes of comparison. All of the examples of pottery in this case will be selected from the present exhibits, from which the fraudulent matter is being weeded out.

In nearly every large collection of pottery and porcelain reproductions and forgeries of well-known manufacturers will be found.

In the case of the frauds in the collection at Memorial Hall, they have come into the museum as bequests, for the most part, along with extremely rare and valuable material.

One of the grossest cases of forgery in the museum discovered by Mr. Barber is a set of pale blue and white porcelain, decorated with heads of famous beauties and fops of France of the period of the Restoration. This porcelain was made of hard paste between 1830 and 1850. It bears, however, the mark of the old soft paste porcelain of Sèvres, made only prior to 1770. The cost price of this set doubtless did not exceed \$20. Yet under the guise of the genuine it brought upwards of \$500.

A cup and saucer in clever imitation of the old French soft paste porcelain made prior to 1770 is palpably not more than 20 years old. It is really of modern French soft paste. It bears the jewel decoration, and the forged date of 1771. Decorations of the kind were not made at Sèvres, however,

until about 1780. This makes an anachronism of only nine years, and yet it is sufficient to give the lie to the transaction, and set the expert thinking.

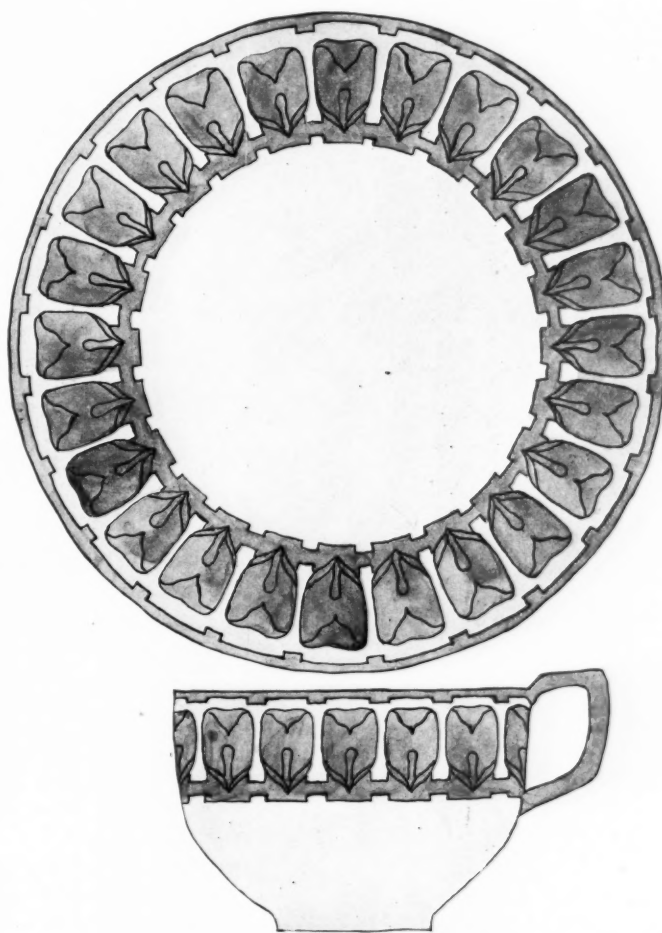
In an open-work plate purporting to be Dresden, the mark is a palpable forgery. The plate is seen at once to be modern French hard paste porcelain.

There is a handsome coffee pot of French make also made in imitation of Dresden china.

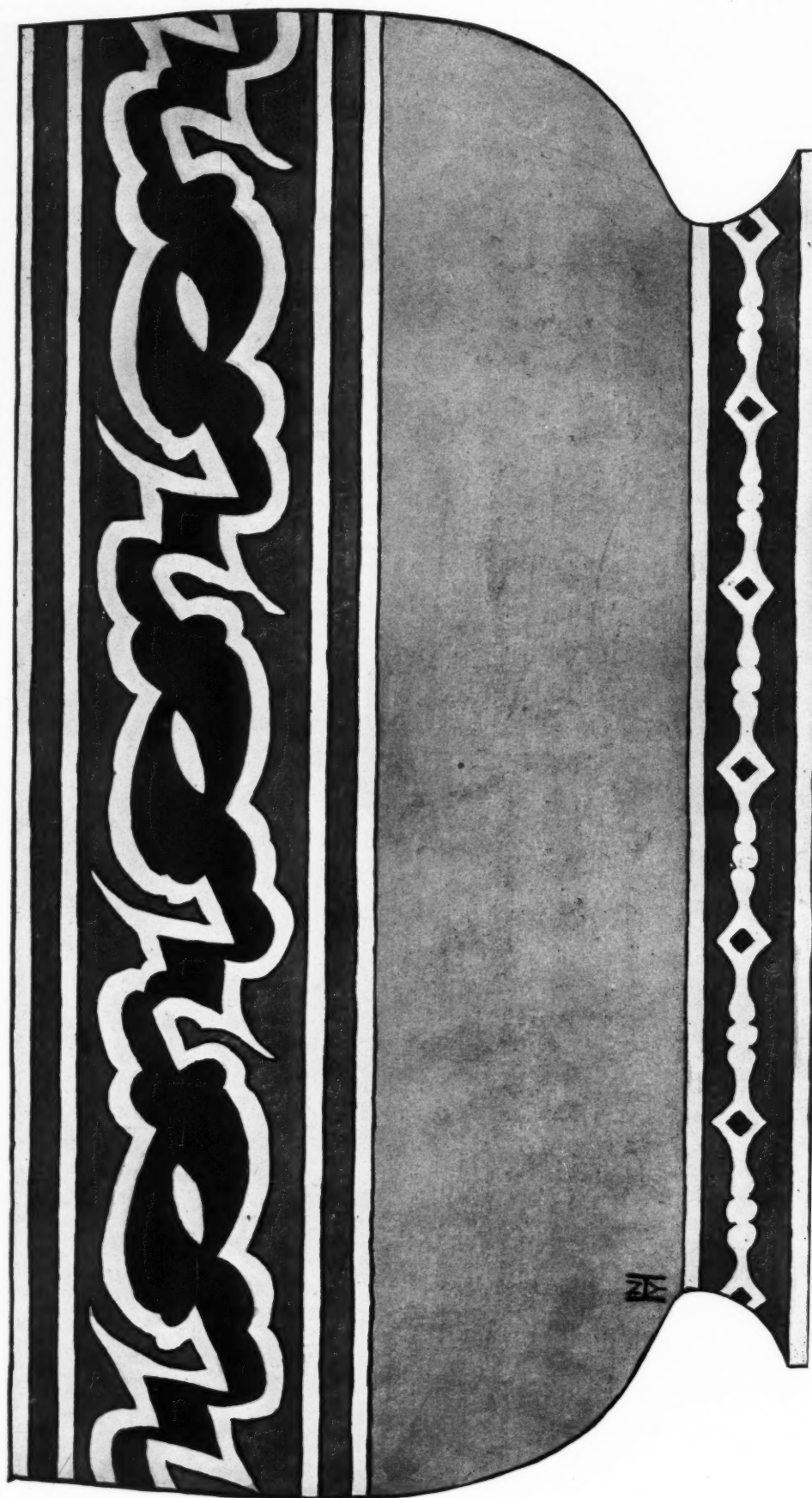
There is a third plate in imitation of Dresden which is really French hard paste porcelain of a late date. Here the ignorant forger has marked it with the insignia of old Sèvres soft paste and dated it 1765.

Modern Majolica ware is made after the old patterns of the sixteenth, seventeenth and eighteenth centuries, but so well copied that it puzzles the expert.

Perhaps the most profitable china to forge is the Old English, decorated in dark blue with American views. Originals of this style are rare and extremely valuable, but there is a factory in Baltimore to which some of these prized heirlooms may be traced. They are disposed of a few at a time, the chief market being at sales of old china. The genuine "Anti-slavery" plate is especially rare, yet the obliging Baltimorean will furnish two to any one who has the price, at a moment's notice.



CONVENTIONALIZED FROM JACK-IN-THE-PULPIT—HANNAH B. OVERBECK



CONVENTIONAL DESIGN FOR BOWL—NELLIE Y. HAMILTON

DESIGN FOR BOWL

*Nellie Y. Hamilton*

THE design, which is a conventionalized Jack-in-the-Pulpit, can be carried out in blue and white, or in two shades of green lustre leaving the white places for gold or making them orange lustre and outlining with black.

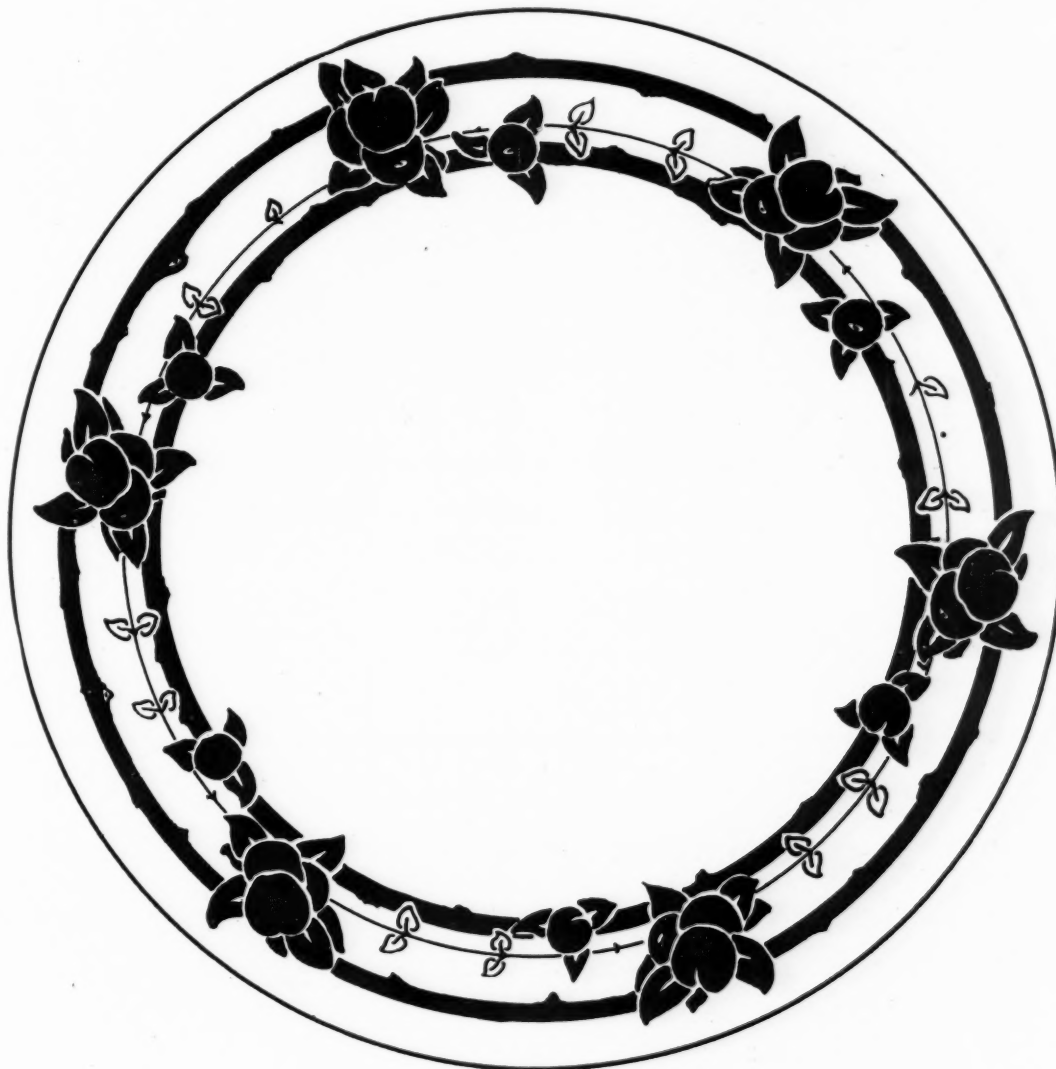
STUDIO NOTES

William Watts Taylor, manager of the Rookwood pottery, has just received a degree as Master of Arts conferred by Har-

vard College. The degree is conferred on him as a "sympathetic and successful promoter of a highly artistic craft and manager of Rookwood pottery, the best American contribution to ceramic art."

The International Studio announces a new department devoted to notes on crafts in the United States.

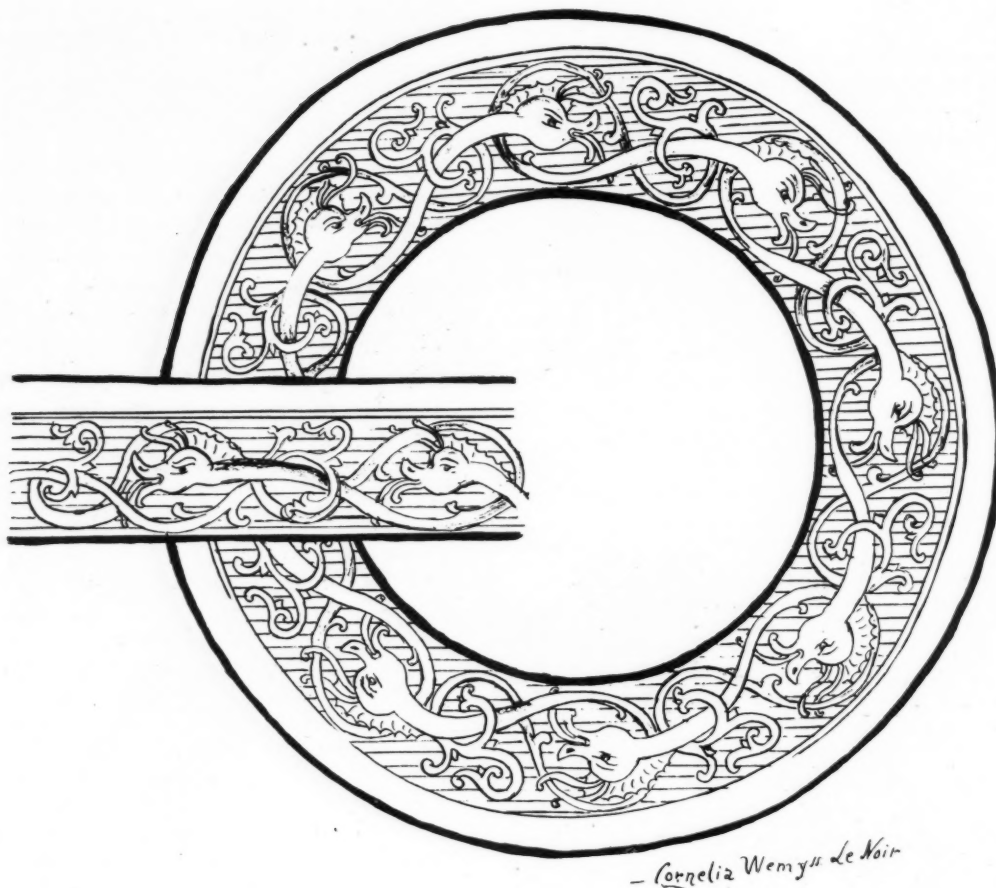
Novel tea sets in Royal Doulton are circled with galloping huntsmen done in gay colors. Others are decorated with men and women dressed in the picturesque costumes of the days of George IV.



PLATE—RUSSELL GOODWIN

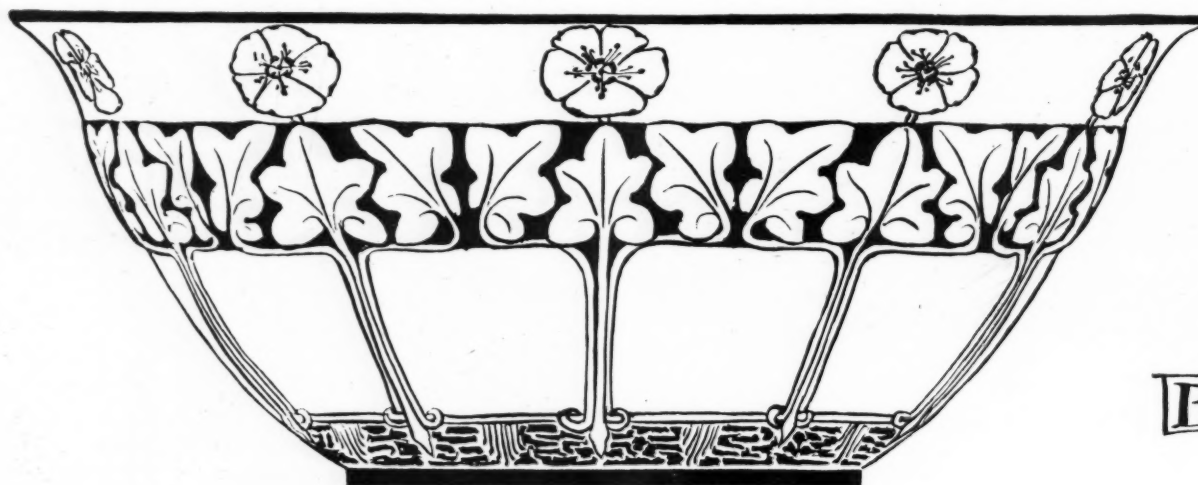
Design in gold outlined in black or red.





CUP AND SAUCER DESIGN—CORNELIA WEMYSS LE NOIR

Background, Pale Violet of Gold; dolphins, shades of Blue and Green; bands, Blue, Green and Gold. Could be carried out in lustres effectively as well.



BOWL—BEATRICE BROOKS

Design in yellow brown lustre on white with gold outlines.

## THE CRAFTS

WOOD CARVING AND PYROGRAPHY. LEATHER AND METAL. BASKETRY, ETC.

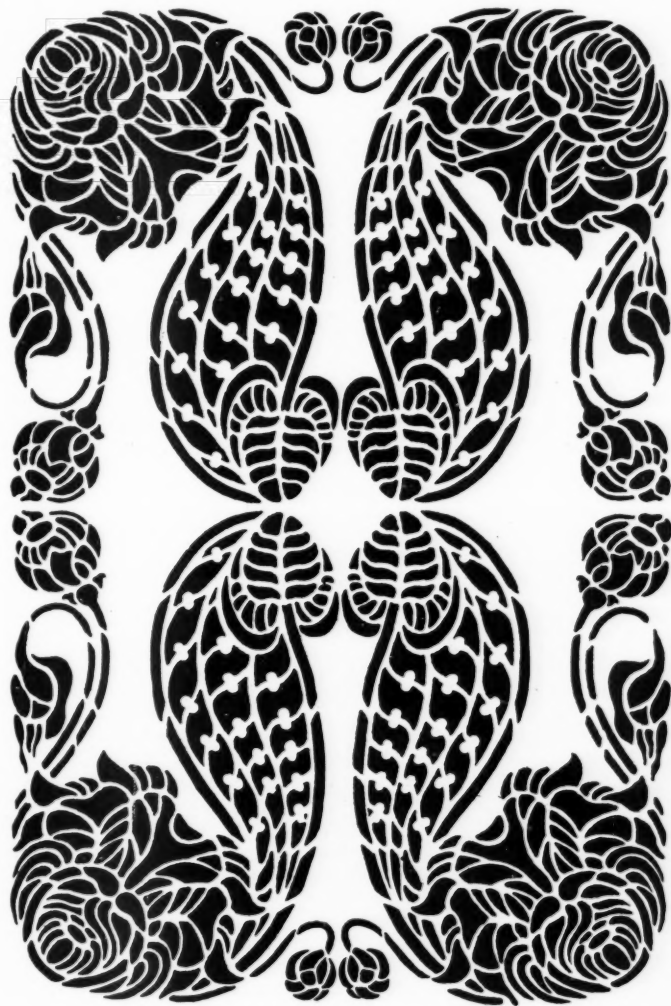
*Under the management of Miss Emily Peacock, summer address, 4477 Western Ave., Westmount, Montreal, Can. All inquiries in regard to the various Crafts are to be sent to the above address, but will be answered in the magazine under this head.*

### THE STENCIL

*Clifton Windsor White*

THE first thing to be considered in a stencil is the design. A successful stencil, at least from a decorative standpoint, must be pleasing in line, well balanced, and with a good disposition of large and small spaces. It must be remembered that a design will always appear weaker when applied than it does in the cut stencil, and this must be allowed for in the drawing.

Have as few partly detached pieces in your design as possible and always make the necessary supports follow the general line in your composition, trying to have them, as far as is practical, really a part of your design.



No. 1. Stenciled Chair Back.

Designs may be varied by relying on the background to form the pattern in one portion, and on the cut-out parts in another. The stenciled chair back (Fig. 1) for example. In the central portion of the design the white, which is in reality the background, gives the effect of being a pattern on a ground of black.

Some designs are made with a separate stencil for each

color (as Fig. 2), which simplifies the execution, but with a little extra care excellent results can be obtained with the one stencil, using as great a variety of colors as desired. The



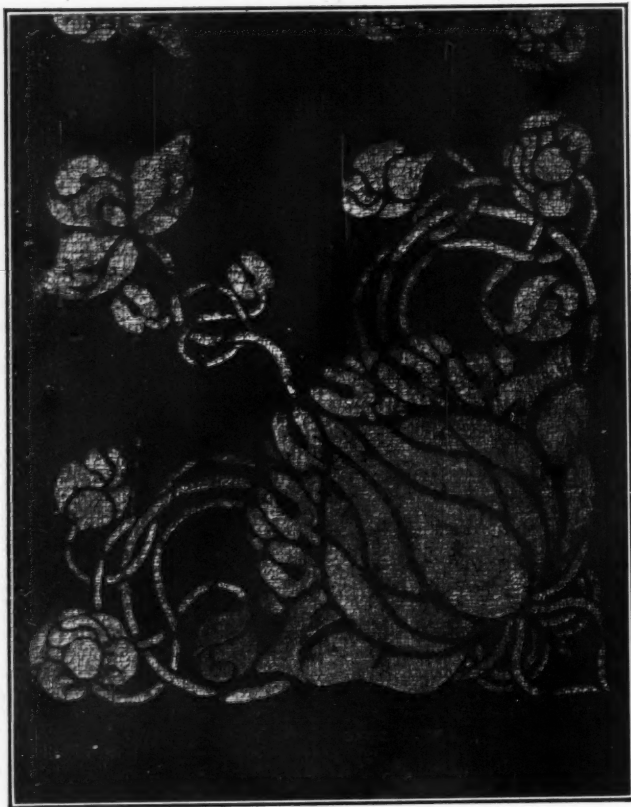
No. 2. Showing how a separate stencil may be cut for each color.

heavy stencil paper which is sold by the yard, is the best material to use for this work, although for small designs heavy manilla or duplex paper may be used. This paper should be securely tacked to a board, and the design traced or drawn upon it. As the stencil is easily damaged, it is well to trace and keep the original drawing for reference.

After the design is traced on the paper fill a brush with linseed oil, and cover the surface with it, using as little oil as possible. When the paper has thoroughly absorbed the oil, you may begin the cutting, although the paper is more easily cut after oiling, the knife is apt to slip, and great care must be exercised. A regular stencil knife is perhaps the best, but any good blade that is firmly set in a smooth handle may be employed. Keep an oil-stone close at hand with a little oil to moisten it with, as the point of the knife needs almost constant sharpening. After the stencil is cut and the oil in it has dried, cover both sides of the stencil with a smooth coat of alcohol shellac, which will make the stencil more durable.

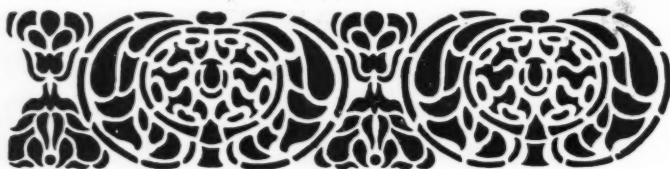


No. 3. Motive for a frieze.



No. 4. Corner of a table cover in grey green velour, stenciled in greenish gold.

When this surface is perfectly dry, the stencil will be ready for use. For example, if you have a frieze, an all-over pattern, or any decoration to apply to a wall, have the design repeated several times on your stencil, as it will greatly facilitate the work; tack it down as firmly as possible, to the wall, and steady with one hand while you stipple with the other. Use a stencil brush varying in size according to your design. Remove all superfluous moisture from your brush before starting to apply it to the surface. This rule appertains to stenciling on any fabric or surface, and is the only way to secure a clear edge to your design. Stenciling on velour and other materials is more difficult, and good technique is only possible from experiment and practice. For intricate designs small round bristle brushes will be found useful, particularly where several colors are to be employed on the one stencil. Oil color thinned with turpentine, fresco paint, transparent water color, dyes and all bronze powders mixed with gum arabic or any good mixing liquid can be used, but for silk, ooze leather, or any material where you want the surface quality to show through, the dyes are by far the best; for some fabrics a little gum arabic may sometimes be added to the dyes to prevent them from running, but this is not practical where it would spoil the brilliant lustre, as in velour, or when it would stiffen thin fabrics. Although a stenciled design should never have its edge destroyed, after removing the stencil, it is often found necessary to retouch some of the spaces and this may be done



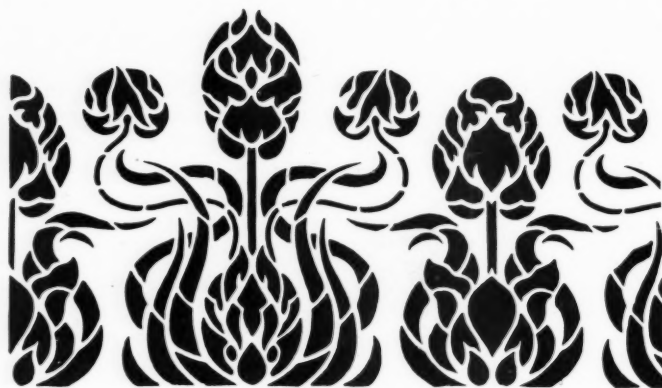
No. 5. Stencil design for border.

without altering it in the least. To secure a rich surface of gold, especially on a fabric after the bronze is stippled on, take a fairly large sable or bristle brush and wash over each space with the gold mixture until you get the effect desired.

Besides the knife, a small steel punch is indispensable where numerous dots form part of the design, this method is frequently used by the Japanese who excel in the art of stencil washing. A study of the marvelously cut Japanese stencils will prove very helpful to anyone interested in this subject, and one little volume, called "Illustrations of the Art of the Japanese Stencil-cutter," by Andrew W. Tuer, F. S. A., contains some fine reproductions.

Stencils should never be rolled or folded. Tack them to a wall or better still, if they are not too large, place them in a flat box or drawer, keeping something heavy upon them.

All the illustrations of this article with the exception of frieze No. 6 were especially designed to be executed in three or more colors giving a very different appearance than where reproduced in a single tone. Numberless variations may be obtained from one stencil by varying the tones and colors in a design, so that the original interpretation could scarcely be recognized.



No. 6. Frieze stenciled in dull red on a background of lighter tone, with ceiling of the same lighter tone. Wall dull peacock blue and velour hangings of the same shade as the stencil.

### CARVED FURNITURE

THOSE thousands of articles in carved mahogany turned out by the furniture factories and made to look like antiques are carved by machinery. The machine is one of the most ingenious, elaborate and expensive of modern inventions—so much so, indeed, that it can be used profitably only by those who turn out furniture wholesale.

Even the introduction of the machine has not been able to ruin the hand carvers, for the work of the machine must be followed by that of a skilled carver who shapes and smoothes it until to the eye of the untaught it seems to be all handwork. So great has been the demand for carved furniture, indeed, that it is by no means certain that the introduction of the wood carving machine has not made more work for the hand carver.

Wood carvers in New York are chiefly Germans or men of German descent, Italians and a few skilled Frenchmen. Some men work in the factories as finishers, others work for the skilled cabinetmakers, and still others have little shops of their own where they employ a few men and boys and do perhaps the most delicate work themselves.

The best carvers earn \$4 or \$5 a day, but are seldom employed the year around. A few of much more than average skill get considerably higher wages. A man employed by the



year in a cabinet making shop may hope to earn from \$15 to \$16 a week.

The little shops of the self-employed carvers are filled with men and boys at all sorts of wages. Some of the rougher work is done by boys who earn only \$4 or \$5 a week. A man who can follow copy and cut a true line may get three or four times as much.

The old French quarter used to have many such little shops, and a new one springs up every now and then in the German quarter. The cabinetmakers find it profitable to have some of their work done by the piece at such shops.

To the cabinetmaker piece work thus done is often cheaper than he can have it done in his own shop by his carvers regularly employed by the year or working at \$4 or \$5 a day. A single carved chair leg is sent along with a dozen legs in the rough to the little shop, and the whole dozen come back looking so like the model that only the cabinetmaker can tell model and copies apart.

The woodcarver's trade is still haunted by mediæval traditions, and the best men in the trade have a strong sense of its relation to the fine arts. There are a few carvers who are known to all the cabinetmakers of the town, and are sure of profitable employment the year round even in the duller times. Some carvers are specialists in their art and known for their skill in doing the acanthus leaf or some other pattern or in handling rosewood or mahogany.

Perhaps the invention that the skilled carver most resents is the substitution in cheap furniture of pressed work for carved work. In some of the cheapest furniture the design is impressed directly upon the wood. In other cases papier maché designs, often of the most elaborate kind, are applied to the wood, securely glued to it and stained and polished in such fashion that only the skilled eye can distinguish the thing from genuine wood carving. Strangely enough, this false carving is really durable. It seldom separates from the wood unless long exposed to dampness and never, like even the best of genuine carving, cracks or chips.—*N. Y. Sun.*



SILVER SALT CELLAR

*Mrs. K. W. Wright*

THE very simple and beautiful salt cellar made by Mrs. K. W. Wright was of silver, 22 gauge. A piece three inches square was used and the same method of making as that for the tea strainer in July number, excepting that the centre of the bottom part was left flat, not beaten at all, and the upper edge was slightly turned over. The small spoon was made from the same gauge silver. As the salt cellar, it was cut out from a very exact design, and the bowl of the spoon made in a small hollow pattern in the same way as the tea strainer. See page 69 in July number.

WOOD SCREEN

*Miss M. E. Dow*

THE centre panels of this screen are made of cypress, the frame and carved panels of quartered oak. All the wood is colored a grey green with black and antique oak oil stain, afterwards finished with wax.



The metal trimmings are made of brass 22 gauge, they are cut out with a saw, and modeled slightly on heavy leather. These and the brass hinges are thoroughly cleaned, then dipped in a hot solution of sulphuric acid to color, and afterwards rubbed down, so that some of the metal shows through.

This metal decoration could be entirely omitted, and the centre panels covered with leather.



WOOD SCREEN

*Laura Rogers Way*

THE frame and carved panels of this screen are made of quartered oak and the centre panels are made of cypress. The screen stands five feet and four inches high and each fold is twenty inches wide. It is stained a warm reddish brown.

## ANSWERS TO INQUIRIES

D. W.—If the metal is rusted dissolve about four inches of stick potash in a quart of warm water. If possible immerse the object for about five minutes, after which rinse in hot water until all the rust disappears.

F. G.—The Labradorite can be cut and polished for setting in jewelry, but it is not a very hard stone, so unsatisfactory for practical wear. A good Lapidary will cut any shaped stone for you, and polish the pebbles.

Glen.—If you will use a saturated solution of benzine instead of oil, you will get a lighter finish on your cabinet. It must be rubbed in well though and put on evenly.

Wood-work.—Wood carving and lacquer should be rubbed with fine cotton upon which a little siccative and linseed oil has been placed. Afterwards polish with clean, fine, soft silk.

Miss Smith—DeVoe's Antique oak oil stain is the best for coloring wood, mix this with a little black to make a grey green. The surplus stain must be thoroughly rubbed off, then wax and allow the wax to remain on a few days before rubbing off.

A novel threefold mirror, designed by Miss Evelyn Hickman, is now on show at the Bradford Exhibition of Art. These folding mirrors have always been made to hang on the wall; and it is quite a new idea to have them mounted on a stand. The mirror is in copper, with rich blue lapis-lazuli balls at certain points. Seaweed suggested all the designs for the tracery of the mirror supports, which are beautifully carved

and pierced by the designer. The panels on the backs of the folding doors have the figures of mermaids repoussé on them. Right in the centre, between the candle brackets on either side, is a shield to bear the initials of the owner.



## ANSWERS TO CORRESPONDENTS.

A. J. M.—The KERAMIC STUDIO has published a half tone study of corn and treatment by Mrs. Sadie Wood Safford, but we do not know where you can find the wheat study. The KERAMIC STUDIO has also a half tone study of morning glories with treatment.

E. P.—Mat wax colors are dusted in the same manner as ordinary colors. Some lustres can be used with good effect over fired color if the latter is not put on too heavily. We doubt if you would succeed in getting a good effect by using red lustre over mat black—better try on a broken bit of china first.

E. D.—We do not know of any book on enamel decoration but will gladly give any information possible in these columns. The Aufsetzweis or hard enamel can safely be fired twice, sometimes more, but the soft or ready colored enamels are better fired once only, though occasionally they are found to stand two fires if the china is of a soft paste. We do not quite understand your question in regard to chimney connection of your kiln. The kiln pipe can go into any chimney even if used by furnace or stove, but in firing kiln the damper in furnace or stovepipe should be turned to shut them partly off or their fire will burn out too rapidly. When not in use the damper in kiln pipe should be closed so as not to interfere with draft of furnace or stove.



PLATE—A. B. SHARRARD

Cream flowers on grey ground, or all forms in Copenhagen Blue.